What is claimed is:

1. An apparatus for treating a production interval of a wellbore, the apparatus comprising:

a packer assembly;

a sand control screen connected relative to the packer assembly;

a cross-over assembly providing a lateral communication path downhole of the packer assembly for delivery of a treatment fluid and a lateral communication path uphole of the packer assembly for a return fluid;

a wash pipe assembly in communication with the lateral communication path uphole of the packer assembly and extending into an interior of the sand control screen; and

at least one sensor operably associated with the wash pipe assembly, the sensor operable to collect data relative to at least one property of the treatment fluid during a treatment process such that a characteristic of the treatment fluid is regulatable during the treatment process based upon the data.

2. The apparatus as recited in claim 1 wherein the wash pipe comprises:

a body that includes a plurality of composite layers and a substantially impermeable layer lining an inner surface of the innermost composite layer forming a pressure chamber; and

an energy conductor integrally positioned within the body.

3. The apparatus as recited in claim 2 wherein the sensor is coupled to the energy conductor.

4. The apparatus as recited in claim 2 wherein the energy conductor comprises an optical fiber.

5. The apparatus as recited in claim 2 wherein the energy conductor provides for communication between the sensor and the surface.

6. The apparatus as recited in claim 2 wherein the energy conductor provides for communication between the sensor and a downhole processor.

7. The apparatus as recited in claim 2 further comprising a series of sensors embedded within the body of the wash pipe at predetermined intervals that collect data relative to the at least one property of the treatment fluid as a function of position.

8. The apparatus as recited in claim 1 wherein the at least one property monitored by the sensor is selected from the group consisting of viscosity, temperature, pressure, velocity, specific gravity, conductivity and fluid composition.

9. The apparatus as recited in claim 1 wherein the characteristic of the treatment fluid that is regulated is selected from the group consisting of fluid viscosity, proppant concentration and flow rate.

10. The apparatus as recited in claim 1 further comprising a downhole mixer.

11. The apparatus as recited in claim 1 wherein the treatment process is selected from the group consisting of gravel packing, frac packing, acid treatments, conformance treatments, resin consolidations and chemical treatments.

12. An apparatus for monitoring treatment fluid in a production interval of a wellbore during a treatment process, the apparatus comprising:

at least one sensor operably positioned within the production interval of the wellbore;

wherein the sensor is operable to collect data relative to at least one property of the treatment fluid during the treatment process; and

wherein at least one characteristic of the treatment fluid is regulatable during the treatment process based upon the data.

13. The apparatus as recited in claim 12 wherein the at least one sensor is in communication with an energy conductor that is integral with a tubular having a composite structure, the at least one sensor being operably associated with the tubular.

14. The apparatus as recited in claim 13 wherein the tubular forms at least a portion of a washpipe.

15. The apparatus as recited in claim 13 wherein the tubular forms at least a portion of a base pipe.

16. The apparatus as recited in claim 13 wherein the sensor is embedded within an inner surface of the tubular.

17. The apparatus as recited in claim 13 wherein the sensor is embedded within an exterior surface of the tubular.

18. The apparatus as recited in claim 12 further comprising a series of sensors operably positioned at predetermined intervals within the production interval of the wellbore that collect data relative to the at least one property of the treatment fluid as a function of position.

19. The apparatus as recited in claim 12 wherein the at least one property monitored by the sensor is selected from the group consisting of viscosity, temperature, pressure, velocity, specific gravity, conductivity and fluid composition.

20. The apparatus as recited in claim 12 wherein the characteristic of the treatment fluid that is regulated is selected from the group consisting of fluid viscosity, proppant concentration and flow rate.

21. The apparatus as recited in claim 12 wherein the treatment process is selected from the group consisting of gravel packing, frac packing, acid treatments, conformance treatments, resin consolidations and chemical treatments.

22. A method for treating a production interval of a wellbore, the method comprising the steps of:

positioning a sand control screen assembly within the production interval;

disposing a wash pipe assembly interiorly of the sand control screen assembly;

injecting a treatment fluid into the production interval exteriorly of the sand control screen assembly;

sensing data relative to a property of the treatment fluid during the injecting with a sensor operably associated with the wash pipe; and

regulating a characteristic of the treatment fluid during the injecting based upon the data.

23. The method as recited in claim 22 further comprising relaying the data to the surface via an energy conductor integrally associated with the wash pipe.

24. The method as recited in claim 22 further comprising relaying the data to a downhole processor.

25. The method as recited in claim 22 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of sensing fluid viscosity.

26. The method as recited in claim 22 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring temperature.

27. The method as recited in claim 22 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring pressure.

28. The method as recited in claim 22 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring velocity.

29. The method as recited in claim 22 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring specific gravity.

30. The method as recited in claim 22 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring conductivity.

31. The method as recited in claim 22 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring fluid composition.

32. The method as recited in claim 22 wherein the step of injecting a treatment fluid into the production interval further comprises performing a treatment process selected from the group consisting of gravel packing, frac packing, acid treatments, conformance treatments, resin consolidations and chemical treatments.

33. The method as recited in claim 22 wherein the step of regulating a characteristic of the treatment fluid further comprises the step of regulating the fluid viscosity of the treatment fluid.

34. The method as recited in claim 22 wherein the step of regulating a characteristic of the treatment fluid further comprises the step of regulating the proppant concentration of the treatment fluid.

35. The method as recited in claim 22 wherein the step of regulating a characteristic of the treatment fluid further comprises the step of regulating the flow rate of the treatment fluid.

36. A method for monitoring treatment fluid in a production interval of a wellbore during a treatment process, the method comprising the steps of:

positioning at least one sensor within the production interval of the wellbore;

sensing data relative to a property of the treatment fluid during the treatment process; and

regulating a characteristic of the treatment fluid during the treatment process based upon the data.

37. The method as recited in claim 36 further comprising the step of relaying the data to the surface.

38. The method as recited in claim 36 further comprising relaying the data to a downhole processor.

39. The method as recited in claim 36 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of sensing fluid viscosity.

40. The method as recited in claim 36 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring temperature.

41. The method as recited in claim 36 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring pressure.

42. The method as recited in claim 36 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring velocity.

43. The method as recited in claim 36 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring specific gravity.

44. The method as recited in claim 36 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring conductivity.

45. The method as recited in claim 36 wherein the step of sensing data relative to a property of the treatment fluid further comprises the step of measuring fluid composition.

46. The method as recited in claim 36 wherein the treatment process is selected from the group consisting of gravel packing, frac packing, acid treatments, conformance treatments, resin consolidations and chemical treatments.

47. The method as recited in claim 36 wherein the step of regulating a characteristic of the treatment fluid further comprises the step of regulating the fluid viscosity of the treatment fluid.

48. The method as recited in claim 36 wherein the step of regulating a characteristic of the treatment fluid further comprises the step of regulating the proppant concentration of the treatment fluid.

49. The method as recited in claim 36 wherein the step of regulating a characteristic of the treatment fluid further comprises the step of regulating the flow rate of the treatment fluid.